Bureau of Land Management
National Office of Fire and Aviation
International Program

Fiscal Year 2001
Activity Report

Introduction

This report encompasses the activities coordinated by the International Program of the BLM's National Office of Fire and Aviation (OFA) during fiscal year 2001.

OFA has exchanged information and technology with other countries for many years. These exchanges have led to innovative approaches to BLM fire management issues. OFA recognized the increasing need to have a focal point for these activities and in 1998, established its International Program (IP). The IP works closely with fire and aviation and resource staffs at all levels of BLM to identify and explore with other nations, new ways to face common global challenges of wildland fire management.

Goals of the International Program

The International Program continues to focus on two main goals. As in past years, these goals look at improving Bureau programs by enhancing individual employee skills and providing challenging professional and personal experiences. The goals are:

- To improve BLM's fire and aviation program;
- To offer challenging international assignments to employees through activities that;
  - Share ideas, techniques, training, and skills,
  - Acquire new methods of dealing with common problems of wildland fire management,
  - Expand personal professionalism, perspectives, and knowledge,
  - Increase adaptability to new and challenging situations,
  - Create an atmosphere for innovative thinking,
  - Develop and sharpen leadership skills,
  - Highlight the diversity of skills and abilities of Bureau employees.

Program Activities that Accomplish these goals:

- Technical and scientific exchanges with countries faced with similar fire management issues;
- Technical support to countries in need of fire management training and disaster relief assistance through reimbursable agreements with other federal agencies or hosting of employees;
- Outreach efforts through attendance at international meetings and conferences to stay abreast of global fire management issues;
- Other activities include;
  - Cooperation with other nations on the exchange of fire information;
  - Coordination of international fire agreements which include BLM, such as the Mexico/USA Cross Border Agreement, and the arrangements with Australia and New Zealand;
  - Coordination of visits by international fire and emergency management officials to the U.S.

FISCAL YEAR 2001
INTERNATIONAL PROGRAM ACTIVITIES

The following portion of the FY01 Activity Report provides information on program activities coordinated by IP and implemented by BLM employees from state offices and the national office. More information on many of these activities is available through the International Program or on the National Office of Fire and Aviation's webpage at:

http://web.blm.gov/internal/fire/intntl/index.htm

I. Technical and Scientific Exchanges with Countries Faced with Similar Fire Management Issues

CANADA

k Fireline Safety Officer's Training Course Development

Discussion: Stan Palmer, NIFC Safety Manager, traveled to Hinton, Alberta Canada March 6-9, 2001 to assist Canadian wildland fire training specialists at a Fireline Safety Officer's Training Course Development session. The Canadians are in the process of developing a Fireline Safety Officer's course and this session involved using the NWCG S-404 *Safety Officer Course* as the model for the Canadian course. Stan provided the course outline as well as his instructor and fireline background in assisting the Canadians.

During the session, Stan presented a unit on accident investigation and the role of the Safety Officer. After the presentation he discussed the policy, definitions, and procedure of a Serious Accident Investigation Team. With the Canadian training specialists, they reviewed current fatality reports and Stan introduced the *Agency Administrator's Guide to an Incident within an Incident*, the importance and need for critical incident stress debriefing and the idea of a new course called *Taking Care of Our Own in Line of Duty Deaths*.

Recommendations/Conclusions: Stan was able to assist the Canadians in improving their ability to provide better safety to firefighters on the fireline. The other positive part of this international collaboration is that the training given on both sides of the border will be similar, leading to an increased ability to share firefighting resources that have a background of common training, qualifications and procedures.

k **Informal Discussions**

Although no other formal exchanges occurred during FY01, OFA continued to have informal discussions, attendance at meetings, study groups etc., with Canadian counterparts.

Recommendations/Follow Up: Canada's innovative approach to the use of technology and its adaptations of U.S. systems and equipment bear further analysis. IP will continue to work with state offices and other programs within the national office to identify and encourage exchanges with Canada**.**

MEXICO

k SRV Training

Discussion: Panfilo Fernandez Flores, State Coordinator for Forest Fire Protection for the State of Campeche, from the Government of Mexico's Secretariat of Environment and National Resources (SEMARNAT), went to Vale, Oregon, June 1-9, 2001, as part of the SEMARNAT-BLM exchange program. The purpose of the exchange was for Panfilo to observe how BLM Oregon's Vale District identifies, organizes, trains, tests, and equips mainly Hispanic firefighters for the Snake River Valley (SRV) crews. He observed SRV crew training first hand, and participated in the one-week field training session. Because of his background in fire suppression and fire training, Panfilo was asked to assist during portions of the training. This activity was a follow up to similar exchanges which occurred in 1999 and 2000.

Recommendations/Follow Up: In the closeout, Panfilo said that he was very impressed with the SRV crew training. He also said that he was pleased that he could assist with the training. Sandy Guches, the Acting Vale District Manager, and the Vale District fire management staff were very complimentary of his participation and said he had been an asset to the training. Both the Vale staff and Panfilo felt that this exchange should continue.

RUSSIA

k Smokejumper Exchange to Russia

Discussion: Bruce Ford, a smokejumper with the Alaska Fire Service, traveled to Moscow, Russia, February 20- March 3, 2001 to meet with representatives of Avialesookhrana, Russia's aerial forest fire fighting service and with individuals of private companies involved in parachute technology and development. Avialesookhrana plans to replace its present parachute system. The trip had four objectives:

1. To review Avialesookhrana's efforts to develop a new parachute system for their smokejumpers.
2. To gather information on Russian experience with developing and testing drogue parachute systems
3. To gather information about Russian innovations in parachute automatic activation devices (AADs) produced in Russia.
4. To see how information gathered, might be applicable to BLM's ongoing efforts to improve its smokejumper delivery systems.

Recommendations/Follow Up: There is a large pool of parachute expertise in and around Moscow and since the fall of the Soviet Union, the emergence of private companies has energized the Russian parachute industry. Bruce recommended a follow-up visit of BLM parachute specialists possibly in the fall of 2001, after Avialesookhrana had a chance to evaluate some of the innovations on which they are currently working. He also recommended that if Russian smokejumpers came to the U.S. in the summer 2001 that they could be asked to review the recent changes that have been made to BLM parachute

systems. Both the Russian and American smokejumper programs are at somewhat of a crossroads concerning delivery systems. Because of this, Bruce felt that it would be quite beneficial for our programs to maintain contact while each organization works toward improving its systems.

k Smokejumper Exchange to the U.S.

Discussion: Two Russian smokejumpers, Andrei Eritsov and Yuri Pronin arrived in Boise, Idaho, May 23, 2001. They were accompanied by Sergei Kalabukhov, a representative of a Russian parachute manufacturing company.

The Russians brought with them a parachute they had been testing and a parachute automatic activation devise (AAD). They gave presentations on both to the Boise smokejumpers and the Alaska Fire Service smokejumpers. The Russian smokejumpers are putting the new parachute through an evaluation phase before acceptance. Like their current system, it is drogue stabilized with a ram-air main. But a new innovation included a system with a ram-air reserve piggybacked on the main on the back. Other new features included a reserve ripcord handle that also pulls the main release handle and a new style drogue canopy.

On May 26, 2001, Andrei and Yuri flew to Fairbanks for a month to work with the Alaska Fire Service (AFS) smokejumpers. In Fairbanks they received the standard BLM parachute refresher training to familiarize them with BLM gear. The training also included a basic orientation to standard procedures, tactics, safety, and equipment used in fire operations in Alaska.

2001 proved to be a slow fire season in Alaska so on June 16, the two Russians accompanied by Bruce Ford, an AFS smokejumper who speaks Russian and has extensive experience with Avialesookhrana went to Boise. While in Boise, they were given an additional training jump. They were then dispatched to Cedar City, Utah where they jumped two fires. One was on the Kaibab National Forest and the other fire was on BLM land just outside Zion National Park. Both of these fires had personnel on them from the U.S. Forest Service, the National Park Service and the State of Utah. The Russians were able to observe how various agencies coordinate fire suppression efforts on the same fire.

The Russians returned to Boise June 28 for a close out meeting. They left for Russia on June 29.

Recommendations/Follow Up: The Alaska smokejumpers felt that two Russian smokejumpers at a time is an appropriate number to work with during an exchange activity.

The parachute system that is proposed to replace the current Russian parachute system has many innovative design features and it was recommended that the BLM smokejumper program continue to monitor the progress of the Russian program. It was also recommended that the BLM program continues to look at AAD systems for possible incorporation into the BLM parachute system.

The Russians were asked to compare and contrast BLM smokejumper equipment and procedures with their equipment and procedures. They thought our training was very thorough and made good use of such training aids as video taping jumps for reviewing exits and landings procedures techniques . They also liked the progressive difficulty of jump spots in the course of training. They said that communications and navigation systems are very efficient because BLM smokejumpers are issued radios and GPS

units. They also felt the large surface area of the BLM chute was appropriate for the heavy loads that BLM smoke jumpers jump with. Every Russian parachute system is equipped with an AAD that will deploy the main parachute if the jumper fails to pull the drogue release handle. They felt BLM should consider using AADs as a backup. They considered the BLM letdown procedure for tree landings cumbersome and time-consuming, which can increase the chance of falling out of the tree in the process. Andrei Eritsov, on one of his fire jumps, had a main chute whose lines had apparently been twisted in the packing process. He provided a suggestion on how to improve rigging procedures which he felt would reduce the chances of a twisted line during opening such as the one he experienced. They both thought that the BLM jumpsuit is cumbersome and restricts the jumper's movement and view of the canopy and surroundings. They said they prefer a spread-eagle skydiver aircraft exit position over the BLM exit position. They felt their exit position insures better stability. They thought the BLM chute often has a high stall point that was not always predictable. BLM parachute harnesses come in three sizes and are adjustable only at the chest and leg straps. The Russian harness comes in one size and has more adjustments, a configuration preferred by at least one of the Russian jumpers. And finally the Russians described how during training jumps, drop zones in Russia are equipped with a square tarpaulin as an added safety precaution for breaking the fall of jumpers who have a malfunction.

k Cheat Grass Study

Discussion: *Bromus tectorum* (cheatgrass) is an extremely destructive exotic weed in the Great Basin, because it creates homogenous, nearly continuous fuel beds and matures much earlier than most native herbaceous species. This results in frequent large wildland fires; extended fire seasons; damage to related ecosystem components; threats to life and property; and costly fire suppression and land rehabilitation.

In 1999 and 2000, land management officials from the BLM visited several sites in southern Russia to study cheatgrass in its native environment with the idea of gaining a better understanding of cheatgrass and trying to identify innovative ways to deal with the cheatgrass issue in the Great Basin. (See the International Program1999 and 2000 Annual Reports for details)

As a followup to the 1999 and 2000 visits to Russia, a delegation of four Russian scientists and fire managers came to the Great Basin July 1-14, 2001 to view the cheatgrass situation and visit with American scientists and land managers concerning the similarities and differences between rangeland and fire management activities in the two areas. The delegation included Victor Ivannikov, Regional Forester of the Kalmyk Republic; Dr. Taisia Ostray, Chief of Forest Rehabilitation in the Volgograd Region; Yuri Murlykin, Deputy Chief of Avialesookhrana; and Alexei Schedrin, Karelian Division Commander for Avialesookhrana. Alexei Schedrin also acted as the interpreter.

The delegation's hosts included Dr. Bob Clark, Program Manager of the Joint Fire Science Program; Mike Pellant, BLM Idaho State Office Rangeland Ecologist; and Connie Lewis, International Program Specialist. Bob and Mike had traveled to Russia in 2000.

The delegation started in Boise and proceeded around the northern Great Basin, with stops in Logan, Salt Lake City, and Provo, Utah; Elko, Reno, and Winnemucca, Nevada.

Stops of particular interest were:

Snake River Birds of Prey National Conservation Area
1996 Foothills Fire area and rehabilitation work.
USDA Agricultural Resources Service (ARS) lab in Boise
ARS lab in Logan, Utah - Dr. Tom Jones
ARS plant materials nurseries in Logan
USDA Shrub Lab in Provo - Drs. Steve Monsen, Durrant McArthur, and Susan Meyer
Utah State University - Dr. Neil West*

* Dr. West is studying, and is very familiar with similarities and differences of semiarid lands in the Intermountain West and in southern Russia.

The group had the opportunity to meet and discuss the cheatgrass issue with many Bureau employees including Martha Hahn, Idaho State Director, Sally Wisely, Utah State Director and Bob Abbey, Nevada, State Director.

Recommendations/Follow Up: Representatives from BLM and Russia agreed to continue to work together to find innovative methods to deal with the cheatgrass problem in the Great Basin.

k **Fire Managers to Russia**

Larry Hamilton, Director of the National Office of Fire and Aviation, Tom Boatner, State Fire Management Officer for BLM Montana and Tom Frey IP Coordinator traveled to Moscow, Russia September 3-11, 2001. The objectives of the trip were to: attend the 70th anniversary meeting of Avialesookhrana, Russia's aerial forest firefighting service; discuss the BLM-Russia exchange program with Avialesookhrana fire managers; and learn about Avialesookhrana's fire operations and facilities. The BLM group made a presentation to Avialesookhrana to commemorate their landmark anniversary.

Part of the visit included attending an exhibition of Avialesookhrana aircraft, equipment and supplies and observing a simulated fire demonstration which included smokejumpers jumping from fixed winged aircraft, rapellars rapelling from helicopters, two types of air tankers dropping on a small practice fire, and ground forces, fire engines, and other mechanized equipment suppressing the fire. This demonstration provided a rare opportunity to observe a broad spectrum of Avialesookhrana's operations in one location.

Another part of the agenda included a visit to the newly opened Avialesookhrana museum of firefighting history. It was apparent that a great deal of effort and dedication were put into the museum's displays. One display was dedicated to U.S.- Russia exchange activities and included information on both BLM and the Forest Service activities.

Following the meeting, Eduard Davidenko, Chief of the Science and Technology Department of Avialesookhrana, escorted the three to Petrazavodsk, a city northwest of Moscow in the Karelia Region near the Finnish border. There they met with regional Avialesookhrana staff, including Alexi Schedrin the Karelian Division Commander who had been in the U.S. in July 2001 with other Russian fire managers and scientists studying cheatgrass. They toured fire management offices and dispatch facilities, and observed aircraft operations.

During their visit to Russia, all three were very impressed with the comradery and professionalism of the Avialesookhrana organization. They were also impressed with the ability of the Russians to forge and carry on such an organization with the limited resources available to them.

NORWAY

k Technology Study

Discussion: John Gebhard, Chief of Information Resource Management with the National Office of Fire and Aviation traveled to Norway May 25 - June 9, 2001 as part of the ongoing BLM-Norway exchange program. The trip had two main goals:

- S To study and observe how the Government of Norway designed, developed and is implementing the use of a digital radio system called TETRA nationwide.
- S To learn how Norway collects and incorporates geographical information systems and global positioning system data into its national dispatching systems.

BLM, along with other federal agencies, is in the process designing and implementing narrowband radio systems for wildland fire communications needs. It was hoped John would be able to identify some lessons learned from the Norwegian implementation efforts that could then be applied to BLM's implementation planning.

The itinerary provided a detailed perspective on how the Norwegians manage all risk incidents throughout their country. John was particularly impressed with how the Norwegians used GIS/GPS in their dispatching system and thought that their method of collecting, analyzing and projecting information was very innovative.

Recommendations/Follow Up: John felt that his trip represented a first step and a first look at how the Norwegians have been planning and implementing their TETRA system . He recommended that further exchanges occur to learn more about the project management experiences dealing with TETRA as well as the testing and evaluation procedures. He also felt that a review of the Norwegian process for project management problem identification and how they resolved those problems, would also be beneficial.

k Study of U.S. Interagency Incident Command System

Discussion: Past Norwegian emergency officials who have participated in exchanges with BLM have been interested in the interagency Incident Command System (ICS). 2002 was no exception. Nils-Erik Haagenrud, Chief Fire Officer from eht Eleverum Municipal Fire Service came to the U.S. August 13-30, 2001 to obtain an in-depth understanding of how the wildland interagency community uses ICS with emphasis on its all risk applications. He intended to use what he learned to help with the implementation of a major reorganization of emergency services in Norway.

Nils toured NIFC, the Idaho BLM Lower Snake River District's fire organization, the Eagle, Idaho fire station and the Ada County Idaho sheriff's office *911* dispatch. He, along with Jim Owings who was on a temporary assignment with the International Program, traveled to McCall, Idaho and visited with Payette

National Forest Fire Management Officer Paul Hefner, who has extensive experience with ICS as used in "All Risk" situations. In addition, they visited five fires to observe ICS in action. There were two Type 1 fires, the Mollie Fire in Utah, and the Fridley Fire in Montana; two Type 2 fires, the Elk Creek Fire in Idaho and the Upper Willow in Nevada; and one Type 3 fire near Emmett, Idaho.

Recommendations/Follow Up: Nils felt that he had an excellent opportunity to observe ICS and that he was now relatively familiar with its function and its value in "all-risk" situations. Upon his return he planned to implement ICS in the Elvrum, Norway, Community Fire Station for use in "All-Risk"situations. This would be a pilot-project for the rest of Norway. He also said that the BLM-Norway exchange program had provided valuable experiences for himself and the three previous participants and should be continued.

II. Technical Support to Countries in Need of Fire Management Training and Disaster Relief Assistance through Reimbursable Agreements or Hosting of Employees

k Spain, Catalonia Conference

Discussion: Eric Hagen, Assistant Fire Management Officer at the Idaho BLM Salmon Field Office traveled with John Szymoniak and Dave Lukens, both from the Wallowa-Whitman National Forest to Catalonia, Spain to make presentations at a fire management workshop, February 3-11, 2001. This was Eric Hagen's third trip to similar conferences in Catalonia. He has been hosted by the Government of Catalonia on each occasion.

The purpose of the trip was twofold

- S To exchange information on the challenges and accomplishments of the 2000 fire season (a very difficult one both in the U.S. and in Catalonia);
- S To assist Catalonia in their efforts to develop a more proactive fire management program, particularly in the area of their fuels management program.

Eric's presentation consisted of three parts:

- S A review of the climatic and weather factors leading up to the 2000 fire season in the Intermountain West, what actually occurred and how it was dealt with, the challenges, and what lessons were learned from the experience;
- S An analysis of cost of suppression vs. fuels treatments for U.S. Federal fire agencies for the period 1995-99;
- S An analysis of some recent [USFS] fuels treatments in the path of the Clear Creek Fire near Salmon, Idaho in 2000 and their effect on the severity and behavior of the fire.

Eric and John Szymoniak have been involved with Marc Castellnou, a Catalonian fire manager, and his emerging fuels program since 1997. There own experiences in fuels and fire management, and an awareness of some of the social and political challenges Mr. Castellnou is facing in the development of his program, influenced the content and tenor of the presentations and the direction of the conference workshops.

Some of the challenges they are facing in Catalonia are similar to those in the U.S. Mr. Castellnou is also challenged by the fabric and history of his own agency. The fuels program is now annually funded, but that funding comes out of the general fire management budget which has strong long-standing competing priorities. Some fire managers are still not entirely convinced of the need for fuels treatments, although that viewpoint has softened considerably from what was observed at previous conferences. Planning and implementing government fuels treatments predominately on private lands also presents social and funding challenges on a scale not yet encountered in the U.S. Significant, however, are the changes in social acceptance, both public and within their fire management organization, within the last two years. Eric was encouraged that several neighboring countries and provinces have prevailed on Catalonia and Mr. Castellnou for assistance in prescribed fire training and project initiation.

Findings/observations/conclusions/recommendations: Mr. Hagen feels his association with Catalonia and Marc Castellnou has been culturally fascinating, professionally enriching, and personally gratifying.

k **Mexico, Helicopter Training**

Discussion: Rocky Bernal, Single Engine Air Tanker Manager on the BLM Arizona Safford District, participated as one of three United States instructors on a training assignment to Chilpancingo, Guerrero, Mexico, February 17-24, 2001. Isidoro Solis, and Paul Mondragon of the Forest Service were the other instructors. A total of 15 fire fighters from the Government of Mexico's Secretariat of Environment and National Resources (SEMARNAT) attended the training which included the presentation of S-217 *Interagency Helicopter Training Guide* and S-371 *Helibase Manager*. Rocky has been involved in this program since 1998.

Findings/observations/conclusions/recommendations: Rocky has noticed a marked improvement in SEMARNAT's personnel in the use of helicopter training and operations. He said that beginning with the 2001 fire season in Mexico, SEMARNAT will be using helicopter management forms from the *Interagency Helicopter Operations Guide* which have been translated into Spanish. One of the forms he said they would be using was the "load calculation form," which is similar to the ones used by the Forest Service and Interior agencies. Helicopter contracts similar to those used in the United States will be used in Mexico for the procurement of firefighting helicopters. Future plans include helitack and rappel crews. The foundation for Mexico's firefighting helicopter operations is following what the U.S. has learned and refined over decades. Similar helicopter operational training, and the use of common forms and procedures will be very useful in any future cross border firefighting support operations.

k **U.S. Forest Service - Disaster Assistance Support Program (DASP)**

The U.S. Forest Service has a Disaster Assistance Support Program (DASP) in its International Programs Office. DASP provides emergency management technical support to the US Agency for International Development's Office of Foreign Disaster Assistance (OFDA). Through a reimbursable agreement with the Forest Service, BLM supports DASP's mission through the training and provision of BLM employees and through the provision of equipment and supplies.
The reimbursable agreement for FY01 was $250,000.

Below is a listing of the support that BLM provided to OFDA through DASP in Fiscal Year 2001.

Honduras :

Bill Laspina, Great Basin Cache Returns Warehouse Manager, traveled to the U.S. military's Soto Cano Airbase in Honduras February 3-5, 2001, with Terry Goeldner, OFDA's Assistant Logistics Officer. The purpose of the trip was to meet with military personnel at Soto Cano to finalize an interagency agreement for the maintenance of a new OFDA disaster relief supplies warehouse at the airbase. Bill's background in warehousing was very helpful because part of this assignment was to assist Terry in preparing a space utilization plan for the storage of disaster relief supplies in the new warehouse.

INSARAG Meeting for the Americas:

OFDA sponsored the annual conference of the *International Search and Rescue Advisory Group* (INSARAG) Regional Group for the Americas in Miami, Florida, May 23-26, 2001. The conference was hosted by the Miami-Dade Florida Fire and Rescue Department.

Since 1991, INSARAG has developed as a mechanism to provide the international search and rescue community a forum to promote new ideas for the delivery of urban search and rescue and humanitarian relief to victims of earthquakes throughout the world. INSARAG is made up of countries who may wish to join and who have some international search and rescue capability. The U.N.'s Office for the Coordination of Humanitarian Affairs (OCHA), in Geneva, Switzerland is the secretariat for INSARAG.

Tom Frey assisted with the development of the INSARAG process during the 1990's and with some of the protocols used by INSARAG members at disaster sites. One such protocol is the On Site Operations Coordination Center (OSOCC). The OSOCC is set up at a disaster site to assist a disaster-affected country with coordinating the receipt and deployment of international search and rescue teams and distribution of relief commodities.

Because of his knowledge about INSARAG, and his experience working with OFDA, Miami-Dade and Fairfax County, Tom was asked to assist with the facilitation of this INSARAG meeting. Tom co-facilitated the meeting with Mr. Joe Bishop an international search and rescue disaster specialist from Gibraltar with whom Tom has worked for more than 10 years on INSARAG issues. Tom worked with Joe to refine the agenda and develop an exercise for meeting participants. The products from the exercise became the outcomes and recommendations of the meeting. The emphases of the recommendations were that the INSARAG process was valuable and worth supporting; that affected countries must develop criteria to request, receive and manage international search and rescue resources offered by the international community; and that the countries must reinforce their efforts to share knowledge, skills, and experiences with each other to improve their own country's emergency response systems.

This meeting included representatives mainly from the Americas. They were from Argentina, Bolivia, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala. Honduras, Peru, Venezuela, Canada, Barbados, Nicaragua, Iceland, and U.N. OCHA. U.S. representatives came from Miami Dade, Fairfax County, OFDA, the Federal Emergency Management Agency, and the U.S. military's Southern Command. Because of language requirements, the meeting was simultaneously interpreted in Spanish and English. Documents were also translated into Spanish and English as needed.

These meetings underscore the importance of countries of the world working together for a common cause of assisting one another effectively in times of need. BLM's Office of Fire and Aviation played an important role in supporting that effort.

India Earthquake After Action Workshop:
Tom Frey assisted DASP in the facilitation of an "after action" workshop for OFDA. The workshop was held in Washington, D.C. June 6-7, 2001.

The purpose of the workshop was to review the U.S. Government's response to the India earthquake of January 2001 and to capture lessons learned from this response. OFDA has the responsibility to coordinate the U.S. Government's international disaster response activities. The

earthquake affected more than 16 million people, left 600,000 homeless, injured 170,000 and killed 17,000. The U.S. Government provided $13 million in assistance over several months.

Tom's background in working with OFDA in the development of OFDA's response capabilities gave him insight into the issues and lessons learned that were identified in this workshop. The report that was generated from the workshop was presented to senior managers within OFDA to review and prioritize actions to be taken to improve OFDA's response systems.

DART Training:

IP worked with DASP to train Forest Service and BLM employees for potential international assignments dealing with disaster relief. IP assisted in the preparation and presentation of two Disaster Assistance Response Team (DART) training/orientation sessions during 2001. Eight BLM employees attended the DART training in Reno, Nevada, March 12-16 and eight BLM employees attended a second DART session in Seattle, Washington, April 23-27.

DARTs are ICS-based, multi disciplined teams which are sent out by OFDA to international disaster sites to coordinate the U.S. Government's relief efforts. The DART training helps prepare individuals to work in support of OFDA in Washington, D.C. and on international assignments. The training covered the purpose and structure of organizations and offices that the participants may encounter on these assignments; personal preparation, health, and safety issues; cultural awareness and sensitivity in the foreign environment; OFDA's mission, roles, and responsibilities; and the structure and organization of a DART. Although the training is geared for assignments with OFDA, much of the material covered served as an excellent base for anyone traveling on an international assignment.

The 16 BLM employees who attended the two sessions in Reno and Seattle were:

Anita Bilbao	Oregon State Office
Barbara Hill	Oregon State Office
Chris Parkan	Elko, Nevada Field Office
Dave Russell	Medford, Oregon Field Office
Dave La Chance	Milwaukee, Wisconsin Field Office
David Cooper	Coos Bay, Oregon District Office
Dave Rosenkrance	Idaho State Office
Gary Ryan	Carson City, Nevada Field Office
Mike Benefield	Burns, Oregon District Office
Miriam Simonds	Milwaukee, Wisconsin Field Office
Paul Lenmark	Alaska Fire Service
Bob Dickerson	Alaska Fire Service
Scott Hocklander	Alaska Fire Service
Scott (Gus) Malone	Utah State Office
Tom Schmidt	Alaska Fire Service
Winslow Robertson	Grand Junction, Colorado Field Office

BLM Employees Who Served on Details in FY01 in Support of OFDA in Washington, D.C.
The following is a list of individuals who attended Disaster Assistance Response Team (DART) training over the past several years and served on details of several weeks with OFDA, providing support to OFDA's international disaster relief efforts.

- Kent Hamilton - Shoshone, Idaho
- Jason Hofman - Boise, Idaho
- Bill Laspina - Boise, Idaho
- Martin Lew - Medford, Oregon
- Terry Hueth - Portland, Oregon
- Eva Brown - Boise, Idaho
- George Battaglia - Fairbanks, Alaska
- Tom Frey - Boise, Idaho

Support to OFDA from the Great Basin Cache:
The Great Basin Fire Cache continues to assist OFDA, under a reimbursable agreement through DASP, with the procurement, assembly, refurbishment, storing, and shipping of "Remote Location Packs." They are used by OFDA employees and OFDA detailers on disaster responses throughout the world. These kits consist of 44 different items including sleeping bags, tents, water purification tablets, rain gear, mosquito nets, masts, candles first aid kit, etc. In FY 01 approximately 80 of these packs were assembled and transported to various locations around the world.

Another important service that the cache provides OFDA is storage for approximately 4,000 copies of the ***Field Operations Guide for Disaster Assessment and Response*** used by OFDA and numerous international disaster responders on field assignments.

III. International Meetings and Conferences

k Canada - 2000 International Wildland Fire Safety Summit

Stan Palmer, NIFC Safety Manager, attended the 2000 International Wildland Fire Safety Summit in Edmonton, Alberta Canada October 9-13, 2000. Stan was the BLM representative on the National Wildfire Coordinating Group Safety and Health Working Team (NWCG-SHWT) which attended the conference. The Safety Summit consisted of more than 30 presentations on safety related issues. In addition to presentations, there were six breakout groups. Stan attended the Wildfire Safety and Human Error session. Following the summit, the NWCG-SHWT met with training specialists from the Canadian Forest Fire Training Center in Hinton, Alberta to work on a wildland fire safety training CD. The CD proved to be an excellent interactive training tool. Arrangements have been made with the Canadian contractor who put the CD together to modify it for use in US firefighter training. When the changes are complete, the US will have a very inexpensive firefighter training aid. Additional discussions with the Canadians involved sharing course outlines and instructor knowledge about the NWCG S-404 Safety Officer Course (see comments in "I" above).

k Canada - Evergreen Fire Simulation - Flames

LaMar St. John, Instructional Systems Specialist with the National Fire Management Training Group at NIFC, traveled to Ottawa, Ontario Canada November 1-3, 2001. The purpose of this trip was to meet with contractors and developers of the Evergreen Fire Simulation Program "FLAMES" to discuss modifications to the contract. FLAMES is a user friendly computer simulation model that is used to train fire personnel in initial attack tactics. The contract calls for modification of the FLAMES simulation model to improve its prescribed fire capabilities and to add extended attack and visual data base capabilities. Specific details about each aspect of the contract were discussed along with conceptual plans for accomplishment. The trip successfully accomplished many objectives that could not have been accomplished without the personal interface between the contractor and the contracting officer's representative.

k Canada - 11th World Conference on Disaster Management

Tom Frey, International Program Coordinator for the Office of Fire and Aviation, was a speaker at the 11th World Conference on Disaster Management held in Hamilton, Ontario, Canada. The conference was held June 24 - 27, 2001, and was sponsored by the Canadian Centre for Emergency Preparedness. This annual conference brings together about 400 emergency managers from a variety of fields including emergency management, business continuity, and emergency health care. The conference, which has been held since 1989, promotes communication and networking among professionals through the exchange of ideas, knowledge and experience. Emergency managers from about 15 countries were represented at the conference.

Tom's presentation was on the 2000 fire season in the U.S. and the prospects for the 2001 fire season. He emphasized the international assistance that the U.S. received from Canada, Australia, New Zealand, and Mexico. At the conclusion of his presentation, Tom answered several questions about the process and challenges of mobilizing and supporting thousands of firefighters in field conditions. His presentation was a part of the conference track called *Real Events*. Other conference presentations were parts of conference tracks referred to as *Real Leaders, Real Issues,* and *Real Solutions.*

k **Canada - Council of State Governments -West, Joint Meeting**

Larry Hamilton, Director of the Office of Fire and Aviation, attended the Council of State Governments - West Joint Meeting in British Columbia July 26-27, 2001. Larry made a presentation on the lessons learned from the 2000 fire season in the U.S. The Council of State Governments-West is a nonpartisan organization dedicated to providing a platform for regional cooperation and collaboration among western state legislatures.

IV. Other Activities

k Australia and New Zealand Wildfire Agreements

Tom Frey, International Program Coordinator for BLM's National Office of Fire and Aviation traveled to Sydney, Australia April 19-23, 2001 to meet with Australian and New Zealand officials to discuss the contents of U.S. wildland fire arrangements with Australia and New Zealand.

During the peak of the 2000 fire season, the U.S. wildland fire agencies were no longer able to locate qualified mid-level fire management personnel for fire line assignments. Because of the long-standing exchanges of personnel and ideas between the U.S. and Australia and New Zealand and because Australian and New Zealand wildland firefighting agencies have training and experience similar to U.S. firefighters, it was decided by the National Multi-Agency Coordinating Group that the U.S. should officially approach Australia and New Zealand with the proposal to send their firefighters to assist the U.S. Australia and New Zealand agreed to this request and approximately 100 firefighters were brought from "Down Under" to assist with the fires.

The agreement under which these international firefighters were brought to the U.S. was quickly written and justified based on the emergency situation that the U.S. was facing in 2000. However, that agreement was only for the emergency requirements caused by the extreme fire season of 2000 and would not be legal for any other year.

The meeting took place on Sunday, April 22 at the Police College in Manly, New South Wales, a suburb of Sydney. The U.S. individuals in attendance at the meeting, besides Tom, included Denny Truesdale from the U.S. Forest Service, Robin Friedman from the Department of the Interior Solicitor's Office, and Brian Siler from the U.S. Embassy in Australia. Australian representatives from four Australian states New South Wales, Western Australia, Victoria, and Tasmania attended the meeting. New Zealand sent two representatives.

The meeting centered around the feasibility of new agreements, the issues that needed to be addressed in the agreements, the legality of such agreements, and a discussion of what process to follow and how long it would take to complete the agreements. A draft agreement was reviewed and edited line by line and word by word by the attendees. The meeting ended Sunday evening. Some attendees remained in Australia on Monday to continue working on drafts of the agreement. Tom returned to the U.S. on Monday morning April 23.

All the attendees at the meeting felt that an agreement was both feasible and desirable. They also agreed that the goal should be to try to complete an agreement prior to the main part of the 2001 fire season in the U.S.

k Australia - New Zealand / U.S. Wildfire Arrangements

Work continued on the issues described above and on September 9, 2001, in Washington, D.C., Secretary of the Interior Gale Norton and Secretary of Agriculture Ann Veneman signed formal arrangements with three Australian States in the presence of the Australian Ambassador to the U.S. The event was an opportunity to thank the Australians for their support during the 2000 fire season and to sign the new arrangements.

On September 10, 2001, a similar signing by the Secretaries occurred in Washington, D.C. in the presence of New Zealand Ambassador. The Secretaries took the opportunity to also thank New Zealand for its support to the U.S. during the 2000 fire season.

The next steps in the process will include developing annual operating plans for the arrangements which will define the processes and procedures that will be used to implement the arrangements. An ongoing problem that has yet to be solved is some mechanism for coverage or relief from the concern of possible tort claims against an individual Australian or New Zealand firefighter performing fire fighting actions in the line of duty. Liability insurance has proved too difficult and expensive to obtain. There is still a possibility of legislative relief in FY02.

k Wildfire Protection Agreement Between the U.S. and Mexico

The International Program continues to coordinate with other federal wildland fire agencies on the completion of national level operating plan guidelines for the *Wildfire Protection Agreement Between the U.S. and Mexico* which was signed in 1999. These guidelines will eventually be included in the National Interagency Mobilization Guide. Local operating plans will be developed which will include those points identified in the national guidelines but are more specific to the local operational requirements.

k Global Fire Monitoring Center Study

The OF&A has interfaced with the Global Fire Monitoring Center (GFMC) located at the University of Freiburg, Germany for several years. The primary activity of the GFMC is to provide a central point for information on global fire activity. Another product of the GFMC is the semiannual publication International Forest Fire News (IFFN). The OF&A contributes to IFFN and supports its publication.

The director of the GFMC, Dr. Johann Goldammer, has been the driving force behind the GFMC and has worked diligently to make the center useful and successful. Dr. Goldammer was interested in using technology to improve the quality of the GFMC and reduce the direct workload of his limited staff. He approached OF&A with a proposal to have OF&A become the focal point for providing a daily consolidated report to the GFMC on fire activity in the U.S. and potentially the rest of North America.

Jodi Camrud of the Miles City Field Office traveled to Freiburg March 23-31, 2001 to review how the GFMC inputs and updates U.S. and North American wildland fire and fire weather information onto the GFMC internet site, then to recommend areas of possible collaboration between the OF&A and GFMC. During her trip she learned about the organization of the GFMC and its goals. Jodi discussed with GFMC staff how they envisioned possible further collaboration with the OF&A.

Jodi identified two items that hindered GFMC's website creativity and efficiency:

1. The GFMC collects and analyzes a great deal of information and there is a lack of adequate time and personnel to format and post it on the website.
2. The GFMC uses the Freiburg University server. However GFMC has many limitations placed on it by the University as to how it uses the server.

She had two recommendations which felt deserved further review:

1. Look into methods that might be available to further strengthen the GFMC's ability to produce the IFFN and to improve the GFMC website. Set up a link to the NIFC website.
2. Further investigate the possibility of hosting staff from the GFMC in the U.S. during the 2001 fire season in order to provide the staff with a better understanding of how the interagency fire management system works and how fire information products are produced and distributed at the various levels within the U.S. system.

k Hosting of Delegations and Visitors

IP hosted and briefed several international delegations and visitors during FY01. These activities are in addition to the exchange program.

Guatemala: IP hosted three military officers and two civilian emergency managers from Guatemala, February 7-8, 2001. The group was interested in the interagency wildland fire management system and particularly how the military supported firefighting efforts. IP briefed them on how the wildland fire management agencies, requested, trained, equipped and mobilized troops for use in firefighting. The Guatemalans also received briefings from the U.S. Army's liaison officer to NIFC.

Germany: Boris Weigele and Andreas Casper, staff members of the Global Fire Monitoring Center (GFMC) and students in fire ecology/management program at the University of Freiburg in Germany were hosted by the BLM Craig/Routt Fire Management Unit in Craig, Colorado, for two and half weeks in August 2001. Their goals were to experience a U.S. wildland fire camp and learn as much as possible about all aspects of managing wildland fires and the impacts of fire on resources. To achieve this, they shadowed fire officials and witnessed the Incident Command System in action.

They were provided an aerial tour over the Mad Creek Fire and the blow down in the Mt. Zirkel Wilderness in the Routt National Forest north of Steamboat Springs. They learned about fire management in wilderness areas and the beetle infestation in a blow down area. The blow down was of particular interest since it was similar to a blow down in Germany's Black Forest. It provided an opportunity to compare strategies and management goals.

They also visited the Alpine 2 fire camp outside of Alpine, Wyoming. This was their first stay in a fire camp. Boris and Andreas visited the fire line, sat in on planning and strategy meetings and interfaced with fire personnel in various positions on the overhead team and other modules and units.

When asked about impacts and highlights of the trip, Boris expressed the sentiment of both, when he said, "Seeing ICS not from the book, but experiencing it, makes it much easier to translate to practical application." They gained a better understanding of overhead functions after lengthy discussions and visits with all the section chiefs. They were also impressed with the skills and efficiency of the type I and type II hand crews.

Andreas and Boris also discussed ecosystem management and general resource concerns with Little Snake Field Office specialists. This was an educational opportunity for everyone involved and the exchange of information was two-sided. The visit was definitely a success and met the goals and objectives of the GFMC.

Note: Andreas and Boris's travel and per-diem expenses were provided by the GFMC.

Indonesia: Mr. Junaid from Indonesia was hosted by the U.S. Forest Service for several weeks. His main interest was to learn more about the interagency fire warehousing system. Besides spending days with the Great Basin Cache at NIFC, he also observed operations in smaller warehouses including the Lower Snake River Districts, the Boise National Forest and the Payette National Forest.

Australia:

Ian Dicker, Regional Superintendent for the New South Wales Rural Fire Service in Australia was hosted by the Office of Fire and Aviation's National Aviation Office May 9-12, 2001. Ian came to NIFC to study single engine air tanker (SEAT) operations and aircraft operations in general. Specifically, he was interested in:

- The use of contract vs. call when needed vs. agency managed aircraft fleets;
- Types of compliance/audit systems used;
- Training programs for ground crews and qualification systems;
- The use of personal protective equipment;
- Mobile and fixed retardant/suppressant equipment;
- Airframe modifications;
- Effectiveness evaluations.

Ian reported that Australia's current use of SEATs is tactically similar to the way the BLM uses them but, because Australia does not have sufficient mobile support resources, their use of SEATs is not as prominent in initial attack operations. In addition, they do not have many vendors for this equipment. He said that one possible way for Australia to expand the use of SEATs would be to use more aircraft currently used for agriculture by modifying them for the fire service.

In Boise, Ian held discussions with the National Aviation Office's Chief of the Fixed Wing Program and the Single Engine Air Tanker Specialist. He also toured the NIFC facilities. Ian was hosted by Upper Snake River District field office in Shoshone, Idaho where he learned more about SEAT operations from the field perspective. He remarked that he was very impressed with the flexibility and utility of the SEATs.

Mark Dixon, Aviation Manager, from the State of Western Australia's Department of Conservation and Land Management visited NIFC on June 4, 2001. Like Ian Dicker, Mark's main interest was to learn more about the BLM SEAT program. He met with the Group Manager of the National Office of Aviation and Rob Collins Aviation Management Specialist with the Office of Aircraft Services. Mark received a briefing on the U.S. interagency fire management system and a tour of the NIFC facilities. He was impressed with the amount of resources available for fire

suppression. He stated that in Western Australia there are limited resources and many fires are monitored with no direct suppression efforts. He was particularly interested in the prescribed fire program including costs and how it is used as a fire management tool.

Mark Thomason, a regional commander with the South Australian Country Fire Service came to the U.S. on a Winston Churchill Fellowship to learn more about the U.S. incident command system (ICS) and wildland fire interagency coordination system. NIFC was one stop on his U.S. tour. He received briefings about the U.S. interagency wildland fire management system. He also toured the facilities at NIFC.

Paul Macmichael, a training officer with the New South Wales Rural Fire Service came to NIFC on October 19-20, 2000, as part of an international trip which for him, also included attending the 2000 International Wildland Fire Safety Summit in Canada. He spent two days at NIFC learning about the wildland fire training development program and course content as well as taking the tour of the NIFC facilities.

k Multi-Agency Coordinating Group Training Course:

Tom Frey IP Coordinator, assisted in the presentation of two Multi-Agency Coordinating (MAC) Group training courses during FY01. Tom has been involved with the evolution of this course since its inception in 1989 following the disastrous 1988 Yellowstone fires. The MAC Group course was originally designed as a national level course to improve the knowledge and skills of supervisory dispatchers who would be filling Geographical Area Coordinator and MAC Group Coordinator positions in the future. During the years that the course was presented it evolved into a course for both potential coordinators as well as line managers who had participated or might participate as MAC Group members.

Tom presented a course in Minneapolis in February of 2001 to a class of about 25 people which included federal officials from the Forest Service, Fish and Wildlife Service, Bureau of Indian Affairs and National Park Service and state officials from six states. He also presented a course in Puerto Rico in May of 2001 to officials from the Forest Service, Fish and Wildlife Service and National Park Service. These test courses presented MAC Group course materials that have been revised so that the course can be presented at regional and local levels where most of the MAC Groups are located.

k Support to the 2001 Wildland Fire Season

IP staff supported the interagency wildland fire suppression efforts during the 2001 fire season. Tom Frey IP Coordinator was the National Military Logistics Coordinator for several weeks during the activation and deployment of one army battalion to fires in the northwest. Connie Lewis, IP International Program Specialist, supported the military activation efforts.

k Budget and Staffing

The IP operational budget for FY01 was $200,000. The costs associated with this year's exchanges were not as high as estimated and IP underspent its operational budget.

In FY01, IP had a $250,000 reimbursable agreement with the Forest Service's Disaster Assistance Support Program (DASP) which is a branch of the Forest Service's International Program.

During FY01, the IP staff consisted of two permanent employees and a detailer for the summer.